Relation between Optic Neuritis and Intracranial Disease.

Prof. TH. LEBER, of Göttingen, in some remarks which he made at the London Congress, stated that in his opinion optic neuritis in cerebral diseases is a true inflammation, and is not essentially different from other forms of papillo-retinitis, either in the character of the vascular congestion, or in the nature of the histological changes. It is, on the other hand, very different from the hyperæmia caused by venous stasis and the lesions which depend on it. This inflammation is not caused by stasis in the retinal veins from compression of the cavernous sinus, due to diminished intra-cranial space. It is not the result of irritation of vasomotor nerves, caused by the cerebral affection. It is the optic nerve which is the path of communication between the affection of the brain and that of the eye. An essential part in this transmission is taken by the effusion of a serous fluid into the sheath of the nerve extruded from the cranium by the increased intracranial pressure. This fluid does not act by simple mechanical pressure, since its quantity is sometimes small; probably it possesses phlogogenic properties.

Intracranial tumours act as a sort of foreign bodies provoking inflammatory congestions, and hypersecretion of fluid (internal hydrocephalus). The same effusions are found in meningitis when it is followed by papillitis. The origin of papillo-retinitis in cerebral diseases may, then, be explained by assuming that the intracranial inflammation produces serous effusion, which passes into the optic sheath, and exerts an irritating action on the papilla and neighbouring parts of the eye.

The Pathogenesis and Etiology of Nystagmus of Miners.

Dr. NIEDEN, of Bochum, at the London Congress, read a paper which had for its object to determine:—

1. The percentage of the affection.
2. Its cause.

7054 individuals were examined at the pit's mouth, while going to or returning from their work. Among these 296 (4.2 per cent.) cases occurred. Of 1808 who were examined on their way to work, there were 62 (3.4 per cent., while, of 1746 returning, the number was 52 (3 per cent.). Out of 3017 miners who came under treatment for various forms of eye disease, nystagmus occurred in 172 = 5.6 per cent. Out of a total number of 29,640 persons of all sorts treated for eye affections, the percentage was .55.

Nystagmus occurs only in certain pits, that is to say, in those where the illumination is defective, and especially where the safety lamp is in use. Out of 117 cases encountered within the last two years, 107 (91 per cent.) had worked with this lamp. But where the naked light was in use the cases occurred only sporadically. It is important to notice the frequency of concurrent eye affections, which are met with in 38 per cent. of the cases. Also, of general disorders, which are found in about 45 per cent.

Nystagmus of miners occurs in the mining districts of Westphalia as a general nervous disease in from 4.2 to 8 per cent. of those employed. It consists, not in a muscular spasm, but in a defective innervation, like the tremor of old persons. It is occasionally brought on by working with insufficient light, also by general constitutional conditions. A probable means of preventing this disease would be to double or treble the illuminating power of the lamps in use.

A New Operation for the Cure of Ptosis.

Dr. HERMANN PAGENSTECHER, of Wiesbaden, in calling the attention of the London Congress to the operation which he has devised, stated that all the operations at present employed for the cure of ptosis are unsatisfactory, sometimes producing too great, and sometimes too little result.

It is necessary, in order to obtain perfect movement of the upper lid, to continue the action of the musculus frontalis to this lid itself. This can be achieved by making a scar do the work of a tendon to the frontalis, by which means the upper lid is compelled to follow the movements of that muscle. The simplest way of doing this is to introduce a thick suture above the superciliary ridge, bringing it out at the margin of the lid, and to tie the ends together, leaving it gradually to cut its way out. It is possible also to apply the suture subcutaneously, thus avoiding all disfigurement by scars.

The cicatrix thus formed, acts as a tendon to the frontalis, raises the upper lid, and does not prevent its closure.

Many cases have already been operated on by the author with the happiest results.

Action of Foreign Bodies introduced into the Interior of the Eyeball.

Prof. TH. LEBER, of Göttingen, in a paper on this subject, read at the London Congress, maintained that: 1. Foreign bodies which are clean, and which exert no chemical action, do not cause any inflammation in the interior of the eye.

2. Clean fragments of oxidizable metals—*e. g.*, iron, steel, copper—do not cause purulent inflammation, but many other phenomena which seriously compromise the functions of the eye, especially contraction of the vitreous and detachment and atrophy of the retina.

3. The entrance of metallic fragments into the interior of the human eye is usually followed by purulent inflammation, just as in experiments made without antiseptic precautions upon animals. This inflammation is always due to the action of germs which have entered through the wound.

4. Certain chemical substances—*e. g.*, arsenic, binoxide of mercury, croton oil, etc.—when introduced into the interior of the eye are capable of setting up purulent inflammation, which is quite independent of the action of germs.

5. The extract of septic liquids, in which the germs have been killed by boiling, set up a transient inflammation when injected into the anterior chamber or into the corneal tissue. These experiments favour the hypothesis that the phlogogenic action of the germs depends on the production of chemical substances which act on the vessels.

6. Cysticerci may also set up purulent inflammation in the eyeball, due perhaps to an irritating secretion from these entozoa.

A New Method of Examining and Numerically Expressing the Colour Perception.

Dr. OLE BULL, of Christiania, at the London Congress, explained his method, which is based on producing the four principal colours of an equal intensity and shade.

From among the different hues of these colours the author has, for blue, chosen that which mixed with uncoloured light appears blue or colourless. A yellow, complementary to this blue, and of a like shade and intensity, is then produced. A red and a green have been chosen, which at the periphery of the retina appear either of their real colours, or colourless. Such a hue of this red and green is then chosen as to give, when mixed in equal parts, an indifferent gray, of the same shade as that given by the mixture of blue and yellow above referred to.

From these four colours, six fainter tints are derived by mixing up on Maxwell's disk, the single colour with uncoloured (gray) light of the same shade as